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LETTERS TO THE EDITOR

On Duncan MacDougall's Experiment on the Loss of Weight at Death

Ishida's (2009) recent article in the *JSE* has reminded us of the often repeated idea of the weight of souls and of attempts to establish their weight. Regarding the latter, it is interesting to read a story by writer and historian Josiah Phillips Quincy that appeared in the June 1887 issue of the *Atlantic Monthly* (Quincy, 1887). The main character of the story was hoping to perform an experiment with a man who was expected to die. In his words: "I hope to be able to show that approximating the time when the soul leaves the body, there is an alteration in its weight which is capable of registration. I have caused the bed to be supported upon an exquisitely poised balance which will show any remission of the downward pressure" (Quincy, 1887: 733; see also Quincy, 1888: 114). Unfortunately for our fictional experimenter, the man in question did not die.

In his paper, Ishida also mentioned Duncan MacDougall's often-cited article, "Hypothesis Concerning Soul Substance Together with Experimental Evidence of the Existence of Such Substance." The paper, published both in *American Medicine* and in the *Journal of the American Society for Psychical Research* (MacDougall, 1907a,b), has been repeatedly cited from its publication in 1907 to more recent times (e.g., Fisher, 2003: chap. 1; Parks, 2008: 90). MacDougall's article includes reports of weighing experiments with six persons, but only four produced reliable results. These were losses of half an ounce for two patients, and three-eighths and three-fourths of an ounce for the other two. Those interested in the issue of informed consent and in ethics should notice that MacDougall wrote: "The subjects experimented upon all gave their consent to the experiment weeks before the day of death. The experiments did not subject the patients to any additional sufferings" (MacDougall, 1907b: 238–239). There were also tests conducted with 15 dogs. It is stated that the dogs were drugged to control for movements and that they were not dying from any sickness, so I assume they were put to death for the sake of weighing the soul. But there was no loss of weight with the dogs.

MacDougall corresponded with psychical researcher Richard Hodgson (MacDougall & Hodgson, 1907). The first letter published is from MacDougall and is dated November 10, 1901, and he states that he had conducted tests as early as April 10, 1901 (MacDougall & Hodgson, 1907: 267) but that the initial idea occurred to him in the winter of 1896–1897 (MacDougall & Hodgson, 1907: 273).

Some newspapers said that MacDougall was working with other doctors ("The Ponderable Soul," 1907). He was quoted as saying: "Four other physicians under my direction made the first test . . ." ("Soul Has Weight, Physician Thinks," 1907). One of the reports mentioned "Dr. John Sproul of Haverhill and Dr. William V. Grant, of Lawrence" ("Doctors Say Dogs Have No Soul," 1907). It was said that the studies were conducted in the Cullis Free Home for Consumptives ("Soul Weight Puzzles," 1907).

Originally MacDougall wanted to publish his work with no reference to psychic aspects. As he wrote on May 22, 1902, to Hodgson: "I want to first publish the discovery as a fact in the physiology of death, stripped, as a good friend of mine has said, of its 'psychical significance,' because to insist upon the latter might raise prejudice in the minds of many of our present day scientific men, and prevent repetition of the experiment by others" (MacDougall & Hodgson, 1907: 275). But the newspapers got hold of his work, resulting in what Hyslop (1907) referred to as "unauthenticated publication of his attempts, with the usual distortion that everything gets in the papers" (p. 259). In addition to the already mentioned newspaper reports, other headlines read: "Doctors Weigh a Soul" (1907), "The Human Soul" (1907), "Pertaining to the Weight of the Soul" (1907), "Plan to Weigh Souls" (1907), "Soul Weighs an Ounce" (1907), "The Weight of the Soul" (1907).

While MacDougall's article is generally discussed regarding the validity or lack of validity of his claims, his work is also interesting in a broader historical way.

MacDougall's attempts to see if humans and animals lost weight at death may be considered to be part of a variety of conceptual traditions. One of them is the long history of ideas about the soul and subtle bodies, some of which have some physicality (Mead, 1919; Poortman, 1954/1978). MacDougall believed in a "soul substance" because, as he wrote: "It is unthinkable that personality and consciousness continuing personal identity should exist, and have being, and yet not occupy space. . . . The essential thing is that there must be a substance as the basis of continuing personal identity and consciousness, for without space occupying substance, personality or a continuing conscious ego after bodily death is unthinkable" (MacDougall, 1907b: 237–238).

Richard Hodgson was skeptical of the need for a material substance for mind to exist. Hodgson added: "You may perhaps admit the possibility that there may be a physical correlate of consciousness, which physical correlate may nevertheless consist not of what is known as gross ponderable matter, but of the ether. It is thinkable that there should be some kind of ethereal body, and there is apparently a general consensus of opinion among physicists that the ether is imponderable" (MacDougall & Hodgson, 1907: 279). MacDougall restated his view that "the container of the totality of the psychic functions, including consciousness and personality, and still persisting after the death of our bodies, is much more likely to be a material, organically linked with the body than the hypothetical,

yet necessary ether-substance . . .” (MacDougall & Hodgson, 1907: 271). He further said that the “soul substance” was different from the ether. In addition, he wrote:

> If we admitted your proposition that consciousness and personality might exist in a body of ether, then we would still be fulfilling one of the principal parts of my thesis, because ether is a space occupying body. . . . Going back to your theory of ether substance having consciousness and personality for its content, while I cannot conceive, yet it may be that there is a middle substance which is the soul substance, and which resembles the ether in being non-gravitative and therefore not weighable, but which resembles ordinary matter in being discontinuous or capable of existing in separate masses, which is a necessary condition for the existence of individual consciousness or separate consciousness having personal identity. . . . (pp. 271–272)

In addition to ideas of subtle bodies, MacDougall’s concepts were related to the ether. This concept has a long tradition in physics theory (Cantor & Hodge, 1981), and one that permeated 19th-century physics. It was still current when MacDougall and Hodgson were corresponding (Lodge, 1909). The concept already had a history in writings about the spiritual world and psychic phenomena (e.g., Jung-Stilling, 1808/1834), and of the idea of the spirit (e.g., Jamieson, 1884).

MacDougall’s work was also part of attempts to show that some aspect of human beings survive death by an emphasis on observations of emanations from the body at death, such as lights and spirit forms, a topic discussed in the past by such authors as De Morgan (1863) and Bozzano (1934/1937). A small part of this tradition includes the few attempts to take some form of instrumental measurements around the time of death (Baraduc, 1908; Watters, 1935). The concepts developed by MacDougall could also be seen as part of the history of concepts of force related to mesmerism, spiritualism and psychical research (Alvarado, 2006) and to vitalism (Mayr, 1998: 8–16). The latter is represented in the following statement that links the topic with the issue of weight: “If . . . ‘life’ is a form of matter, the life must weigh something, and every living thing on the earth must weigh more immediately before death than it does immediately after” (Hibbert, 1904: 17).

Another interesting area to consider is the reception of MacDougall’s work when it first appeared. In one of the newspaper reports mentioned above it was said: “Death’s mysterious freeing of the human soul has been solved with a pair of scales . . .” (Soul Weight Puzzles, 1907).

There were many opinions about the work, as seen in “Plan to Weigh Souls” (1907), in which one commentator remarked: “I can’t see how an ounce of matter can get away from the body unless it has wings or feet.” This jestful attitude was also expressed by Singleton Waters Davis in his book *A Future Life?* (1907), in which he stated that “the report that the soul weighs only an ounce or two seems to confirm common observation that many people, if they have any at all, have very ‘small souls’!” (Davis, 1907: 158). Another person confessed that the report

produced a "considerable shock to our sensibilities" ("The Weight of the Soul," 1907: 647). It was also said that the loss of weight may be explained by air coming out from the lungs ("Weighing Human Souls," 1907).

In a quote reprinted from the magazine *London Opinion,* it was stated that MacDougall claimed that the soul weighed around half an ounce, and that the "intelligence of those who believed it weighs about half an ounce less" ("Imported Jokes," 1907). A writer in the *Dallas Morning News* said that MacDougall's opponents "have been weighing numerous beeves, porkers, dogs, etc, immediately before they were slaughtered and immediately afterward, and that all of them weigh something more while alive" ("Pertaining to the Weight of the Soul," 1907).

There were also interesting critiques, and debates, in the journals that published MacDougall's paper. This was the case of *American Medicine* (Clarke, 1907a,b; MacDougall, 1907c,d, 1908; O'Malley, 1907, 1908) and the *Journal of the American Society for Psychical Research* (Carrington, 1907a,b; MacDougall, 1907e). I will not discuss this material in great detail. In *American Medicine* Austin O'Malley (1907), an ophthalmologist at St. Agnes' Hospital in Philadelphia, wrote a critique entitled "Is the Vital Principle Ponderable?" in which he questioned MacDougall's assumption of the materiality of the soul. In his view: "That Dr. MacDougall or I cannot explain the loss of weight he noticed when his patient ceased to breathe means absolutely nothing more than that we are ignorant in this case; but the loss of weight has no *necessary* connection whatever with the soul's departure" (O'Malley, 1907: 655). He also questioned the assumption that there had to be a substance, a material and measurable principle. On the other hand, Carrington (1907a) pointed out the several mysterious losses of weight in other conditions, suggestion there was much mystery in MacDougall's findings (see also Carrington, 1908: chap. 13).

Representing the psychical researcher interested in the issue of survival of bodily death, James H. Hyslop (1907) argued that MacDougall's studies had no direct bearing on the subject. He wrote as follows:

> One might . . . contend that success in proving the loss of weight by death in some way not ordinarily accountable by physical theories would not prove that the residuum was a soul. It might be some vital energy, and the soul yet remain an imponderable form of substance. It might even be that vital force, if such there be other than the orthodox chemical theory of life, is also imponderable, and that the residuum of such experiments as Dr. MacDougall's would be some form of matter not yet known. All that successful experiments would prove would be that there was some form of energy unaccounted for by known agencies, and not necessarily that this residuum was the subject of consciousness. (p. 259)

One writer from the *San Francisco Call* had some concerns about the callousness of the experiments. This anonymous journalist wrote: "Having sentenced the patient to death without inconvenient delay they put him on one end of the scales to weigh his soul as he gives up the ghost. . . . The dying man was so much

material for research and nothing more. . . . But as of these doctors, it is doubtful if they have an ounce of soul among . . . them" ("The Ponderable Soul," 1907).

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Thematic Analysis of Mediums' Experiences

Recent investigations into mental mediumship have tended to use a proof-oriented approach (e.g., Beischel & Schwartz, 2007; O'Keeffe & Wiseman, 2005; Robertson & Roy, 2001) intended to demonstrate whether an explanation in terms of discarnate survival is tenable. Consequently, there is a distinct shortage of systematic qualitative studies that have explored the process and nature of mediumistic experiences. The relatively few studies that have gathered qualitative data (e.g., Emmons & Emmons, 2003; Leonard, 2005), for example by interviewing practising mediums, have been unsystematic in their design or have not adhered rigorously to formal methods of qualitative analysis, particularly in reducing their findings to quantitative summaries in the form of percentages. Thus, they have been unable to provide any deep phenomenological insight into mediums' lived experiences, and only serve to highlight the need for a more in-depth exploration of mediums' own accounts of their path to becoming a medium and their understanding of the mediumship process as they experience it.

It is against this backdrop that we welcome Rock, Beischel, and Schwartz's (2008) contribution to our understanding of the mediumship process. In reporting on a thematic analysis of mediums' experiences, Rock et al. should be praised for recruiting practising mental mediums, for adhering to guidelines for good